

EXHIBIT G
to Declaration of Steve Loe

C O N F I D E N T I A L

WATER REPORT

WRI
REF
G4771
M7-2
v.1

C M ENGINEERING ASSOCIATES
San Bernardino and Vista
CALIFORNIA

.228

C O N F I D E N T I A L
WATER REPORT

WEST TWIN CREEK WATER COMPANY
DEL ROSA MUTUAL WATER COMPANY
AND
ARROWHEAD SPRINGS PROPERTY

SEPTEMBER 1987

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- A Waterman Canyon and East Twin Creek Watersheds
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Designation	Title
A	West Twin Creek - Scott 77-398
B	Figure 43 - Scott 77-398
C	East Twin Creek Diversion - Scott 77-398
D	East Twin Creek Shaft and Tunnel - Rowe
E	Underflow Small Streams - Rowe 1921
F	Case 4733 - 1894 Decision - West Twin Creek
G	Case 37453 - 1937 Stipulation - West Twin Creek
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K	Rowe Report - 1961
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Q	USGS - East Twin Creek Flows by Months 1919-20 to 1984-85
R	Recorded Water Production - Strawberry Creek Basin 1947 to 1985
S	Del Rosa Mutual Treatment Costs - 1969
T	Memos by Moore
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V	Deed Book 5825, Page 565

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Designation	Title
W	Deed Book 1331, Page 160
X	Deed Book 1325, Page 261
Y	Deed Book 7211, Page 479

Twin Creeks

Presented below is information found on Page 317 of the Ham Hall report as it pertains to Twin Creeks.

"The waters of the Twin Creeks were first appropriated by authority of a special act of the Legislature, passed in 1854, for municipal and domestic purposes in the town of San Bernardino. Under this authorization, a ditch was dug by direction of the municipal authorities, and the waters of both creeks were brought into the town in 1855. It was soon found that in winter the little work was partially washed away by each freshet, and in summer the waters were lost in the sands long before reaching the town limits, and so it was abandoned in several years afterwards."

Waterman Hot Springs

Ham Hall at Page 318 describes Waterman Hot Springs. This is the general area occupied by Arrowhead Springs Property. Presented below is information taken from the Ham Hall report as it pertains to Waterman Hot Springs.

"In 1874, some waters of West Twin creek were taken out for irrigation of several small plats of bench-land in the canon of the stream, lying at an elevation of about one thousand eight hundred feet above the sea, and above the head of West Twin Creek ditch.

For this purpose, two small flumes, having capacity for from twenty to thirty inches each, were constructed - one out on each side of the stream, which here has a fall of about one hundred and fifty feet per mile. By this means, there are now irrigated thirty-five to forty acres of most productive lands, surrounding and in part forming the beautiful place known as Waterman Hot Springs. The cultivation is about ten to fifteen acres in grapes, ten to fifteen in deciduous fruit trees orchard, a plat in citrus fruits, and the balance in summer crops and garden."

West Twin Creek

Mr. Scott in Scott 77-398 gives, on pages 114 and 115, a description of West Twin Creek ditch and Water Company. Presented as Attachment "A" is information presented by Mr. Scott. As Mr. Scott refers to Ham Hall the detailed information in the Ham Hall Report is not included herein, but can be made available. Figure 43 referred to in Attachment "A" is included herein as Attachment "B".

East Twin Creek

Historical information pertaining to East Twin Creek, Del Rosa Mutual Water Company and Stone Ditch Tunnel is presented in Scott 77-398 and included herein as Attachment "C". A profile of the tunnel and shaft prepared by W.P. Rowe is enclosed herein as Attachment "D". In 1921 W.P. Rowe prepared a report entitled "Velocity of the Underflow of a Small Southern California Stream Increased by Pumping". This report used the tunnel and shaft shown

in Attachment "D" and referred to in Scott 77-398. The Rowe 1921 Report is presented herein as Attachment "E".

EARLY ADJUDICATIONS

Waterman Canyon

June Adjudication - 1894:

The allocation of rights to water in Waterman Canyon were set forth in Case No. 4733 in San Bernardino County under date of June 14, 1894. In this particular action West Twin Creek Water Company was the Plaintiff. Within the list of Defendants was Sather Banking Company, owner of "Waterman Ranch" which includes lands in Sections 2 and 3 and the west three fourths of Section 11, T1N, R4W, SBB&M, which are included in Arrowhead Springs Property. A copy of the decision rendered in Case 4733 is included herein as Attachment "F".

July Stipulation - 1937:

Stipulation No. 37453 dated July 16, 1937 sets forth rights of West Twin Creek Water Company, Plaintiff and other parties as Defendants. A copy of the 1937 Stipulations is included herein as Attachment "G". Plate "A", a portion of USGS quadrangle sheets San Bernardino North and Harrison Mountain, depicts among other features in the Waterman Canyon and East Twin Creek Watershed, the location of Defendants included in the Judgement. Plate A is included at the rear of this report.

East Twin Creek Judgement - 1931

Judgement No. 31798, dated October 19, 1931 and entered in Book 60, Page 200 recorded on December 4, 1934 in Book 1015, Page 311, Official Records, sets forth the rights of the Plaintiff, Del Rosa Mutual Water Company, and the Defendant and cross-complainants in East Twin Creek. A copy of Stipulation to Judgement and Judgement No. 31798 is included herein as Attachment "H".

In addition to the rights of defendants, California Consolidated Water Company, Arrowhead Springs Corporation and California Consumers Corporation the rights of a group of other parties presently commonly referred to as the "Carpenter Right" are set forth in Judgement No. 31798.

The following is copied from subsection (a) of Judgement No. 31798.

"IT IS FURTHER ORDERED, ADJUDGED AND DECREED:

(a) That defendant, Arrowhead Springs Corporation, Ltd., is, subject to the provisions of subdivision (1) hereof, the owner of the right to take water from said East Twin Creek and its tributaries and to use said water upon its said Arrowhead Springs property riparian to East Twin Creek, to the extent that such water is or may be required for any beneficial or riparian use upon said property, and to use said water to the extent of five (5) miner's inches, measured under a four inch pressure, in its steam cove baths and for domestic purposes in Waterman Canyon during the period from the first day of November to the first day of May of each year at all times during said period when the taking thereof will not reduce the water flowing at plaintiff's intake below ten (10) inches, and to use said water to the extent of one (1) miner's inch, measured under a four inch pressure, in its steam cove baths and for domestic purposes in Waterman Canyon at all other times, and is also, subject to the provisions of subdivision (1) hereof, the owner of the right to bottle and ship, out of the said East Twin Creek watershed, waters of Penyugal Spring, Granite Spring and other hot springs tributary to Hot Springs Creek, provided, however, that said defendant, Arrowhead Springs Corporation, Ltd., shall not so use the waters

of Hot Springs Creek, for shipment, irrigation or otherwise, as to reduce the flow of the waters of Hot Springs Creek at the point of its confluence with East Twin Creek below ten (10) miner's inches, measured under a four inch pressure, provided further, however, that no part of parties of any of the water of East Twin Creek, or any of its tributaries, except as otherwise herein provided, shall over be taken to or used upon lands not riparian to said East Twin Creek."

The Carpenter Right entitles the owner thereof to the first 10 Miner's Inches of flow of East Twin Creek arriving at Del Rosa Mutual Water Company's intake.

SECTION 3
EAST TWIN CREEK

RECORDED STREAM FLOWS

Annual

The USGS has a gage on East Twin Creek about 100 feet above Del Rosa Mutual's intake about 0.5 mile south of Arrowhead Springs and about 1 mile downstream from Strawberry Creek. The gage is located immediately below the south line of Section 11, T1N, R4W. Principal tributaries to East Twin Creek include Coldwater Canyon and Strawberry Creek. The drainage area tributary to the USGS gage is approximately 8.6 square miles.

Recorded flows reported by USGS extend from the water years 1920-21 through 1984-85. It is understood that San Bernardino County Flood Control District has taken over operation and maintenance of gaging station since 1985. Presented in Attachment "P" are recorded seasonal flows in East Twin Creek from water years 1920-21 through 1984-85. The average annual flow is 3,610 acre-feet for the 64 year period (1921-1984) with a maximum discharge of 3,710 cfs on January 29, 1980.

Presented in Table No. 4 is the amount of water available at Del Rosa Mutual Water Company's intake as recorded at the USGS gaging station immediately upstream. The Table shows annual amounts with monthly flows at a quantity less than 2.5 cfs, the reported capacity of the intake structure. Also shown in Table No. 4 are recorded flows in excess of the Del Rosa

TABLE NO. 4
TOTAL WATER NOT EXCEEDING 2.5 CFS AVAILABLE
FOR DIVERSION DURING WATER YEARS SHOWN AT
DEL ROSA MUTUAL WATER CO. INTAKE
(Quantities in Acre-Feet)

<u>Water</u> <u>Year</u> (a) (1)	<u>USGS</u> (b) (c) <u>2.5 cfs or less</u> (2)	<u>Exceeds</u> <u>Intake</u> <u>Capacity</u> (d) (3)	<u>Precip.</u> (e) <u>(inches)</u> (4)
1960-61	617	0	6.52
62	1032	758	10.51
63	705	0	17.35
64	720	0	9.34
65	771	379	21.71
1965-66	1256	2504	14.76
67	1627	4993	17.13
68	1325	425	7.50
	1558	13122	31.95
	1478	522	14.54
1970-71	1320	460	13.46
72	857	533	6.85
73	1259	1901	14.50
74	1013	597	15.06
75	1136	414	11.93
1975-76	911	149	15.07
77	892	97	14.91
78	1545	7235	30.83
79	1714	2396	16.46
80	1798	14022	26.57
1980-81	1583	1917	11.51
82	1506	2154	22.92
83	1794	10526	34.37
84	1608	2882	8.93
85	1343	707	10.90
Average	1255	2750	16.74 ^(f)

(a) Oct 1 through Sept 30

(b) Monthly Flows at USGS Gaging Station 150 ac ft per month (2.5 cfs) or less.

(c) Includes 146 ac. ft. per year Carpenter Right

(d) Flows in Excess of 2.5 cfs at Diversion Works of Del Rosa Mutual Water Co.

(e) Calender Year at S.B. County Hospital

(f) 116 Year Average is 15.68

Mutual intake. Annual precipitation recorded at San Bernardino County Hospital for the years of study is also shown in Table No. 4.

Monthly Flows

Attachment "Q" presents monthly stream flows measured at the USGS gage on East Twin Creek. The Attachment is in two parts. Part 1, a copy of USGS data, covers the period from 1920 to 1960 with Part 2 made up from USGS data covering the period 1960 to 1985. Unlike the situation in West Twin Creek, reported earlier, there were no months registering "no flow" in East Twin Creek. The lowest monthly total flow for the 66 years shown was 11 acre-feet during July 1964.

Average Monthly Flows

A study was made to determine average monthly flows at the USGS gaging station on East Twin Creek for the water years 1960-61 through 1984-85. Presented in Table No. 5 is the result of the monthly study. As determined from Table No. 5, eighty percent of annual runoff for the 25 year period occurred between December and May. A graphical representative of Table No. 5 is shown in Figure B.

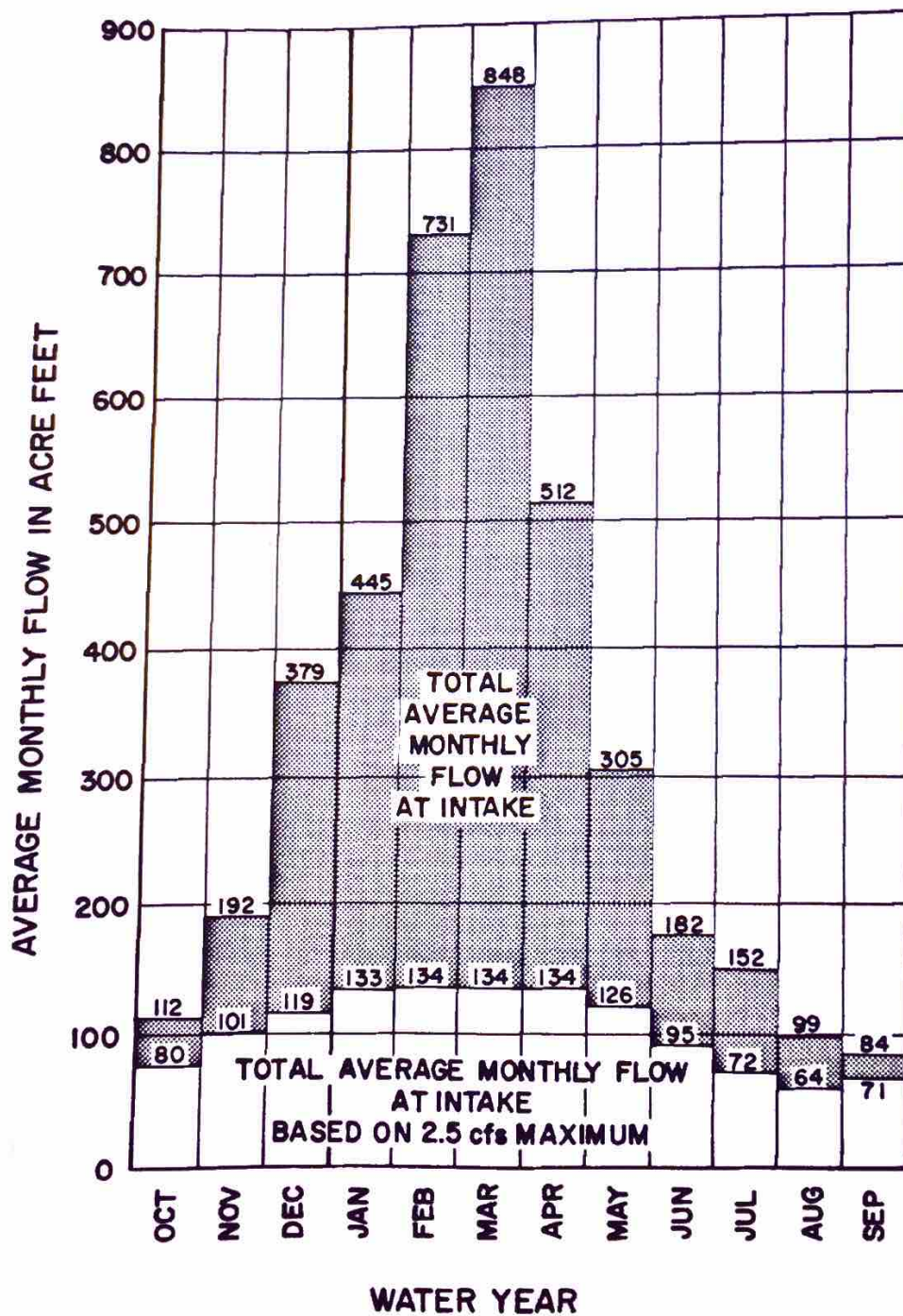
A review of monthly flows at the USGS gage indicates that only on one occasion, July, 1964, the recorded flow was less than 12 acre-feet, the amount required to satisfy the Carpenter Right of 10 Miner's Inches. The amount recorded July 1964 was 11 acre-feet followed by 12 acre-feet for the next three months. A review of stream flows from 1920 to 1985 indicates

TABLE NO. 5
AVERAGE MONTHLY FLOWS AT USGS GAGING
STATION ABOVE DEL ROSA MUTUAL WATER
COMPANY INTAKE ON EAST TWIN CREEK
1960-61 THROUGH 1984-85
(Quantities in Acre-Feet)

<u>Month</u>	<u>Total Average Monthly Flow</u>	<u>Average Monthly Flow Considering 2.5 cfs Maximum</u>
Oct	112	80
Nov	192	101
Dec	379	119
Jan	445	133
Feb	731	134
Mar	848	134
Apr	512	134
May	305	126
Jun	182	95
Jul	152	72
Aug	99	64
Sep	84	71
Average	331	105

Figure B

AVERAGE MONTHLY FLOWS at Del Rosa Mutual Water Company Intake Water Years 1960-61 through 1984-85



there were no other months with recorded quantities of 12 acre-feet or less on East Twin Creek.

CARPENTER RIGHT

The Carpenter Right has been established many years ago and consists of the first 10 Miner's Inches flow in East Twin Creek. This right was included in the 1931 Judgement, Case 31798. A copy of this Judgement is included herein as Attachment "H". This quantity equates to about 12 acre-feet per month, or 146 acre-feet per year. Del Rosa Mutual Water Company is obligated to deliver said first 10 Miner's Inches of flow through its own diversion works and transmission facilities to a diversion box located about one (1) mile easterly of Del Rosa Mutuals' intake structure on East Twin Creek.

DEL ROSA MUTUAL WATER COMPANY

Del Rosa Mutual Water Company diverts stream flows of East Twin Creek through its intake works immediately downstream from the USGS gage. The capacity of the intake is shown on records in the files of W.P. Rowe and Son to be 2.5 cfs, or a maximum of 150 acre-feet monthly.

Recorded Diversions

Recorded diversions from East Twin Creek by Del Rosa Mutual Water Company and the Carpenter Right commence in 1950 and extend through 1976 for Del Rosa Mutual and 1975 for the Carpenter Right. Presented in Table No. 6 are recorded diversions by the above entities for the periods shown.

TABLE NO. 6
RECORDED DIVERSIONS FROM EAST TWIN CREEK BY
DEL ROSA MUTUAL WATER COMPANY AND CARPENTER RIGHT

(Quantities in Acre-Feet)

<u>Calendar Year</u>	<u>1N4W140 Del Rosa Mutual Diversions East Twin Creek 3601811</u>	<u>1N4W14A Carpenter Right (a) East SB CWD</u>
1947	-	-
48	-	-
49	-	-
50	455	46
1951	378	146
52	707	146
53	493	146
54	629	146
55	556	146
1956	460	146
57	556	146
58	764	146
59	400	146
60	300	146
1961	302	146
62	272	146
63	211	146
64	73	146
65	73	146
1966	340	146
67	2449	146
68	1147	146
69	2572	146
70	1656	146
1971	1306	146
72	-	146
73	-	146
74	1090	146 (b)
75	1290	146

Continued on next page

Table No. 6 (Continued)

<u>Calendar Year</u>	<u>1N4W140 Del Rosa Mutual Diversions East Twin Creek</u>	<u>1N4W14A Carpenter Right East SB CWD</u>
1976	708	0
77	-	0
78	-	-
79	-	-
80	-	-
1981	FC	FC
82	FC	FC
83	FC	FC
84	FC	FC
85	FC	FC

- (a) First 10 miner's inches.
(b) Hodgdon - From 1974

Daily measurements of flow at the USGS gage on East Twin Creek are available for the periods shown on Attachment "P". Using a maximum flow of 2.5 cfs and making allowance for the Carpenter Right the amount of water available for diversion by Del Rosa Mutual could be computed by the periods beyond those shown in Table No. 6.

The Carpenter Right was recorded by East San Bernardino County Water District, now East Valley District, until 1973. The 1974 and 1975 recordings were made by Mr. Warner Hodgdon.

Well Production

The well located on Del Rosa Mutual Water Company property at the site of their intake, with details shown in Attachment "D" and described in Attachment "E", produced 194 acre-feet from 1978 to July 1984. For the remainder of the year, 1984, and until November 7, 1985, a total of 44 acre-feet was produced. During 1986 a total of 15 acre-feet was produced. Water produced is used for irrigation purposes. Production data were furnished by Campus Crusade personnel.

RECORDED PRODUCTION BY OTHERS

In addition to extractions made, and recorded by Del Rosa Mutual, and for the Carpenter Right, water production in the Strawberry Creek Basin has been recorded with the State Water Resources Control Board by other entities as shown in Attachment "R". Each of the three producers shown in Attachment "R" are located in the upper reaches of the East Twin Creek Watershed.

TABLE NO. 8
SUMMARY OF FLOWS SHOWN IN TABLES 1 THROUGH 7

<u>Item</u>	<u>Table</u>	<u>Acre-Feet</u>
<u>West Twin Creek</u>		
Average Annual Flow considering 3.0 cfs as a Maximum	1	1030
Average Annual Flow in Excess of 3.0 cfs	1	1360
Annual Rising Water Below USGS Gage	1	250
Average Monthly Flow Mar through Oct 3.0 cfs Maximum	2	790
Computed Diversion During Irrigation Seasons 1920-21 to 1959-60	3	545 (a)
Months Recording 1 ac. ft or less 1912-14 and 1920-85	7	20 each
<u>Strawberry Creek</u>		
Average Annual Flow Considering 2.5 cfs as a Maximum	4	1255
Average Annual Flow in Excess of 2.5 cfs	4	2750
Average Total Monthly Flow 1960-61 through 1984-85	5	331
Average Monthly Flow for Year Considering 2.5 cfs Maximum	5	105
Average Monthly Flow Mar through Oct 2.5 cfs Maximum	5	97
Average Annual Flow - Carpenter Right	6	146
Average Recorded Diversions - Del Rosa Mutual 1947-1976	6	767
Months Recording 12 ac. ft. or less 1920-85	7	4 each

(a) W.P. Rowe & Son Report - 1961

and reasonable beneficial use. Water not diverted should be quantified and claimed as water spread on the cone for storage and future recovery.

Whether the discontinuance of filing has any legal consequence is a matter for legal opinion. Whether the diversion and spreading for future recovery quantities, when compiled, should be filed with the Water Resources Control Board is also a matter for legal opinion.

Water Company Well

Separating the well on water company property from the Water Company for extracting water is a matter that would call for legal review. It is a legal matter as to whether water extracted from the well has a pre-1914 right and/or an adjudicated right.

CARPENTER RIGHT

The Carpenter Right was adjudicated in the 1931 Judgement. East San Bernardino County Water District filed on that right from 1950 together with Mr. Hodgden until 1977. Filings for the 1976 and 1977 period were shown as "0". The Carpenter Right, as used by the District, was delivered to stockholders of Del Rosa Mutual spread or on the cone for later recovery. Whether this valuable right should have filings made up to date and continued is a legal matter. Another legal matter would be the change in diversion point and the change in place use, to Arrowhead Springs Properties, of water represented by the Carpenter Right.

the East Twin Creek spreading grounds below 40th Street to recharge the groundwater basin for later recovery.

Water not diverted from West and East Twin Creeks was allowed to flow downstream where it was percolated into the San Bernardino or Bunker Hill Basin for later recovery by East District, who claimed that portion of the water right through its proportionate share of stock ownership.

Record Keeping

In accordance with information furnished by Ham Hall and Scott 77-398, Del Rosa Mutual Water Company possessed a pre-1914 right. The water by virtue of the 1931 Judgement also has an adjudicated right. Del Rosa Mutual, in addition to diverting surface water, extracted more than 25 acre-feet per year from ground water supplies. As a result, the water company filed its groundwater extractions as well as its diversions on an annual basis with the Water Resources Control Board from 1950 until 1976, as shown on Table No. 6 herein.

When Del Rosa Mutual Water Company was transferred to Mr. Warner Hodgden, East San Bernardino County Water District kept and maintained the Del Rosa Mutual wells, except the well on the water company's property at its intake. As a result, the only remaining water diversion and use for Del Rosa Mutual was from East Twin Creek. Whether the filings should have been continued, in view of no groundwater extractions, is a legal matter. Nevertheless, as in the case of West Twin Creek Water Company, records should be completed and maintained indicating amounts of annual diversions

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Based upon the above costs and diversions and using 5,850 shares of Del Rosa Mutual stock the value of water becomes \$73.00 per acre-foot.

Carpenter Right

No information is currently available as to the value of the Carpenter Right. The right, amounting to the first 10 Miner's Inches of flow in East Twin Creek, was diverted through the Del Rosa Mutual facilities. The flow of 10 Miner's Inches for a year amounts to 146 acre-feet. For purposes of this study it is assumed, because of its first priority basis, to have a value of at least \$73.00 per acre-foot, the same as developed for Del Rosa Mutual.

LYTLE CREEK - PRESCRIPTIVE RIGHT

The Lytle Creek area is located westerly of Arrowhead Springs. Citizens Land and Water Company and Lytle Creek Water and Improvement Company served water in the general area of Rialto and Bloomington for many years using Lytle Creek as one of its sources.

An appraisal of the Citizens Land and Water Company and Lytle Creek Water and Improvement Company was made in January 1961 for Semi-Tropic County Water District by James M. Montgomery. Included in the assets for both companies was a value of the water rights. The prescriptive right in the Lytle Basin was located for the Improvement Company at 2,460 acre-feet and for Citizens at 1,114 acre-feet per year. The value of the prescriptive right in the Lytle Creek Basin was listed at \$2,175 per Miner's Inch in the

Riparian rights are correlative and riparians of a common source must share the natural water of that source. In the case of West Twin Creek each party of the adjudications was granted certain specified rights to waters of that stream system; therefore, there may be no riparian rights on that stream. This feature should be reviewed and determined by legal counsel.

In the case of East Twin Creek; however, the Stipulation for Judgement and Judgement, Case No. 31798, sets out certain rights of Arrowhead Springs Corporation, Ltd., including use of water from East Twin Creek and its tributaries in Arrowhead Springs Property riparian to East Twin Creek.

Other than the United States there are no known owners of land that may be riparian to East Twin Creek and its tributaries above Arrowhead Springs Property. This feature was not examined in detail and is subject to additional review. There are some lands downstream from Arrowhead Springs Property that may be riparian to East Twin Creek and may also warrant additional review.

A complete study of the title history is necessary to determine whether a parcel that was originally riparian remains riparian through transfers of ownership in the title chain.

Patent Lands

In the case of the riparian lands on the Arrowhead Springs Property a complete title history was not made. However, a search was made of patent lands covering Arrowhead Springs Property. Each of the patents issued by the United States Government contains the following language:

"To have to hold the same together with all rights, privileges, immunities and appurtenances of whatever nature thereunto belonging to said (Name of Patentee) and its successors and assigns forever."

A description of the various parcels and data pertaining to Arrowhead Springs Property are presented in Table No. 10. The location of the various parcels referred to in Table No. 10 is presented in Plate B.

The Judgement in Case 31798 states that all lands of Arrowhead Springs Corporation, Ltd., "are contiguous and, except such portions thereof as lie outside of the watershed of East Twin Creek, are bordering on and have access to, and are riparian to said East Twin Creek...". East Twin Creek is defined in the Judgement includes such principal tributaries as Strawberry Creek, Coldwater Creek, Hot Springs Creek and other unnamed tributaries and springs. Plate "B" delineates the drainage area boundary of the above named streams and tributaries.

Exceptions

A number of reservations and exceptions are included in the several patent descriptions listed in Table No. 10. For purposes of identification herein those exceptions are listed as follows:

Exception A:

"Subject to vested and accrued water rights for mining, agricultural, manufacturing, or other purposes and rights to ditches and reservoirs

TABLE NO. 10

PATENT DATA
ARROWHEAD SPRINGS PROPERTY

<u>Name (Patentee)</u>	<u>Description</u>	<u>Date Patent Issued</u>	<u>Recordation Data Date - Book of Patents and Page</u>
So. Pacific RR Co.	All Sec 7 T1N,R3W	11-01-1887	11-19-1897 "E" - 386
Calif to: James McNaire	W $\frac{1}{2}$ of SW $\frac{1}{4}$ Sec 2,T1N,R4W	-	2-12-1894 "E" - 14
Sather Banking Co.	E $\frac{1}{4}$ of NE $\frac{1}{4}$ Sec 3,T1N,R4W	9-06-1904	10-04-1904 "G" - 134
So. Pacific RR Co.	SW $\frac{1}{2}$ of NE $\frac{1}{4}$, W $\frac{1}{2}$, and W $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 11, T1N, R4W	1-09-1885	8-21-1922 "N" - 100
David Noble Smith	SE $\frac{1}{4}$ of NE $\frac{1}{4}$, E $\frac{1}{2}$ of SE $\frac{1}{4}$, Sec 11,T1N,R4W NW $\frac{1}{4}$ of SW $\frac{1}{4}$ Sec 12,T1N,R4W	2-01-1882	6-21-1882 "B" - 573 *
Herbert Royer	N $\frac{1}{2}$ of NW $\frac{1}{4}$ Sec 12,T1N,R4W	11-12-1897	11-18-1902 "G" - 63
Thomas Elder	S $\frac{1}{2}$ of NW $\frac{1}{4}$ and W $\frac{1}{2}$ of NE $\frac{1}{4}$ Sec 12,T1N,R4W	10-06-1888	4-15-1889 "C" - 338
A.B. Chapman et. al.	NE $\frac{1}{4}$ of SW $\frac{1}{4}$, N $\frac{1}{2}$ of SE $\frac{1}{4}$ and SE $\frac{1}{4}$ of NE $\frac{1}{4}$ Sec 12,T1N,R4W	8-15-1889	10-24-1889 "C" - 374

* Corrects "B" Patents - pg 91.

used in connection with such water rights that may be recognized and acknowledged by the local customs, laws and decisions of courts and also subject to the rights of a proprietor of a vein or lode to extract and remove or therefrom, should the same be found to penetrate or intersect the premises hereby granted so provided by law."

Exception B:

Same as Exception A except add: "and there is reserved from the lands hereby granted a right of way therein for ditches and canals constructed by authority of the United States."

Exception C:

"Yet excluding 'all mineral lands' should any be found in the tracts aforesaid, but this exclusion or exception according to the terms of the Statute 'shall not be construed to include coal and gas lands'."

The above exceptions apply to the various Patents as follows:

<u>Patentee</u>	<u>Recorded Patent Book and Page</u>	<u>Exceptions</u>
So. Pacific RR	"E" - 386	C
James McNaire	"E" - 14	None
Sather Banking	"G" - 134	A and B
So. Pacific RR	"N" - 100	C
David Noble Smith	"B" - 573	A
Herbert Royer	"G" - 63	A and B
Thomas Elder	"C" - 338	A
A.B. Chapman et al	"C" - 374	A

Also shown on Plate B is a delineation of the drainage divide between the various stream systems located within the Arrowhead Springs Property. The stream systems include Waterman Canyon, Hot Springs Creek, East Twin Creek, Coldwater Creek and Strawberry Creek. The drainage divides can be used together with the description of the patents to determine the portions of lands that were riparian at the time the patents were issued.

Certain lands and parcels within the Patent lands are also shown on Plate B. The Seth Marshall Lot, located within the southeast quarter of Section 11, is not adjacent to a flowing stream. This parcel may not be riparian unless the deed for same exclusively so states.

Water Lots 1 and 2 are adjacent to Waterman Canyon Creek and may be riparian lands provided such right was not severed in the setting out and transfer of those lands or in the previous adjudication of West Twin Creek.

The deed from Arrowhead Springs Hotel Company to Campus Crusade for Christ recorded in Book 5826 at Page 565, Official Records of San Bernardino County lists the Seth Marshall Lot and Water Lots 1 and 2 as exceptions. Other exceptions include a railroad right of way, pipeline easements and right of ways, a right of way for a State Highway, an easement for Waterman Canyon Road, and several other easements and right of ways for various purposes. Whether any of the various easements and right of ways have any effect on severing riparian rights on once riparian lands is a legal matter and may require a complete title or property search.

Information presented on San Bernardino County Assessor's maps of the Arrowhead Springs Hotel Property indicates that State Highway 18 is owned by the State of California in fee. Maps also indicate that there are some pipeline right of ways owned in fee crossing Arrowhead Hotel Property.

REASONABLE AND BENEFICIAL USE

Since 1928, due to an amendment of the California Constitution the appropriative and riparian rights systems are subject to the common standard that a use of water must be "reasonable and beneficial".

COLDWATER CANYON

A Special Use Permit issued by the United States Department of Agriculture, Forest Service, covers 0.05 acres of land and 0.13 miles of pipe issued for the purpose of "maintaining a water transmission conduit, intake dam, service trail and other appurtenances to convey water from Coldwater Creek to permittee's private land."

The Special Use Permit pertains to a portion of the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 1, T1N, R4W and is dated June 1976.. The permit supersedes a Special Use Permit designated: "Campus Crusade for Christ, Water Transmission, 4/16/63."

MISCELLANEOUS RIGHTS

The summary of water rights included in deeds, agreements and adjudications set out the status of Arrowhead Springs Property as rights to water. A deed recorded in Book 5826, at Page 565 Official Records of San Bernardino County sets out a description of real property granted from Arrowhead Springs Hotel Company to Campus Crusade for Christ. Presented as Attachment "V" is a copy of the above deed.

Parcel 2 of Attachment "V" pertains chiefly to rights to water and water rights. The Deed recorded in Book 1331 at page 160 of Official Records referenced in paragraph 1 of Parcel 2 in Attachment "V" is included herein as Attachment "W" recorded in Book 1325 at Page 268 of Official Records.

As seen on Page 7 of Attachment "V" the Deed is "Subject to" a number of items which include right of ways, easements and the effect of various agreements. Of particular notice, in subject is Item 11, on page 9, which reads as follows:

"Any rights or claims to water rising on and/or flowing through the property herein described."

A deed recorded in Book 7211 at Page 478 of Official Records set out a number of instruments describing among other items water rights granted from Arrowhead and Puritas Waters, Inc., to New Arrowhead, Inc., Items 1 through 3 are described in Attachment "T". Item 4 is included herein as Attachment "H". Deeds are referred to in Item 5 through 9 were not ordered or reviewed. A copy of deed recorded in Book 7211 at page 478 is included herein as Attachment "Y".

SECTION 8

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

1. Water by West Twin Creek and Del Rosa Mutual Water Companies as well as Arrowhead Springs has a long and colorful history dating back well before 1914.
2. Adjudication of water rights in West Twin Creek, Waterman Canyon, have resulted in specified water rights for parties to the action.
3. Judgement in Case 31798 states that all lands of Arrowhead Springs Corporation, Ltd., within East Twin Creek watershed are riparian to East Twin Creek.
4. The Carpenter Right in East Twin Creek is established at 10 Miner's Inches flow or fraction thereof reaching Del Rosa Mutual Water Company intake.
5. Rising water on Arrowhead Springs Property in Waterman Canyon Watershed is equivalent to an average of about 250 acre-feet per year.
6. Average annual flow at the USGS gage on West Twin Creek is 1,030 acre-feet for water years 1960-61 through 1984-85.
7. The months of February and March produce the greatest runoff flow in West Twin Creek.

8. West Twin Creek Water Company diversions ranged between 182 and 696 per irrigation season from 1920 to 1964.
9. Average flows of 2.5 cfs or less at Del Rosa Mutual Water Company intake have averaged 1,255 per year from 1960-61 to 1984-85. The annual amount exceeding capacity of intake averaged 2,750 acre-feet for the same 25 year period.
10. Monthly flows in East Twin Creek were greatest during December to May representing 85 percent of annual flow.
11. Recorded annual diversions by Del Rosa Mutual between 1947 and 1976 ranged between zero and 2,572 acre-feet.
12. The well on Del Rosa Mutual Property, at its intake, has been equipped and producing water since 1978.
13. Low flows of 1 acre-foot per month in Waterman Canyon have occurred generally during August and September for 9 years and 12 acre-feet or less for 1 year on East Twin Creek between 1920 and 1985.
14. Water demand within the West Twin Creek Water Company is estimated at 5 acre-feet per acre per year requiring 740 acre-feet per year for irrigating 133 acres within its service area.
15. The maximum area irrigated by Del Rosa Mutual was 800 acres in 1950.
16. Before any surface water in either West or East Twin Creeks is considered to be used for domestic purposes, the treatment requirements should be obtained from regulatory agencies having jurisdiction.

17. The value of water as diversified methods used herein ranged between \$52 and \$625 per acre-foot.
18. An investigation would be required to determine whether Arrowhead Springs Property has pre-1914 water rights in East Twin Creek or its tributaries.
19. Patent lands making up Arrowhead Springs Property have no reservations as to water rights.

LEGAL CONSIDERATIONS SHOULD BE GIVEN.

RECOMMENDATIONS:

1. Annual diversion and water use from West Twin Creek by West Twin Creek Water Company should be determined for the period of 1964-65 to date.
2. Annual diversion and water use by Del Rosa Mutual Water Company from East Twin Creek should be determined from 1977 to date.
3. Records of extractions and use of water from the Del Rosa Mutual Well on water company property should be kept.
4. Legal reviews should be considered as to whether recording diversions and water use by West Twin Creek Water Company, Del Rosa Mutual Water Company, the Carpenter Right and Del Rosa Well should be made with the Water Resource Control Board.
5. Records should be maintained as to diversion and uses of the Carpenter Right.

6. A review should be made as to whether Arrowhead Springs Property has pre-1914 water rights.
7. Records should be maintained identifying diversion for riparian use on riparian lands of Arrowhead Springs Property.

